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### FemTech Assets

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#### **Abstract**

This article explores FemTech's role in addressing gender inequalities in healthcare, with a focus on its implications for feminist legal scholarship. While FemTech is often framed as a movement aimed at democratising women's healthcare, the article argues that it operates primarily as a financial asset market, prioritising profitability over health equity. Using consumer protection law as a case study, the article examines how consumer access to FemTech markets is shaped by the interests of private investors, such as asset managers and venture capitalists, rather than by concerns for gender health justice. It reveals how FemTech markets enable profitable, scalable healthcare solutions while neglecting health needs that are more marginal and less lucrative. This raises urgent legal questions about the regulation of healthcare technology markets, where access and use are largely determined by assetisation practices. The article calls on feminist legal scholars to critically examine how financial capital, rather than gender alone, governs FemTech markets and the broader healthcare landscape.

**Keywords** FemTech assetisation  $\cdot$  Consumer access to FemTech  $\cdot$  Gender studies of FemTech

#### Introduction

Access to healthcare is profoundly unequal and gendered.<sup>1</sup> Women generally are diagnosed and treated later than men for over 700 diseases (Westwood 2020); they spend longer living with a disability, experience worse physical and mental health, and remain longer on anti-psychotic or sedative medication than their

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<sup>&</sup>lt;sup>1</sup> This is not to suggest that men do not experience worse health outcomes in relation to some conditions. Worse health outcomes for men in respect of some conditions is often attributed not to 'access' problems but largely to behavioural and environmental factors. For more on this, see Gahagan and Bryson (2021) and Hayes and Prior (2003).

Asta Zokaityte

male equivalents (Allen 2018). Health outcomes for racially minoritised women are worse: black women are four times more likely to die in childbirth (Ray 2023); Romani women face severe discrimination in accessing maternity care (Watson and Downe 2017); and cervical and breast-cancer screening for black and brown women is much lower compared with that of their white counterparts (Spencer et al. 2023). To tackle gender inequalities in health, a rapidly growing sector in female health technologies (FemTech) is developing technological products, services and treatments to help women across the world manage their healthcare. These technologies are rolled out across different countries and vary greatly in scope and degree of medical intervention, ranging from breast- and gynaecological cancer screening, urinary tract infection detection tools, mental health services, and safe contraception delivery services, to digital wearables and menstruation and fertility apps.

The language of feminist activism is often deployed in public and popular discourse to describe FemTech as a 'movement' that seeks not only to democratise but also to transform healthcare for women (CMcKiney and Company 2022). FemTech, we are assured, can unlock the transformative potential of the private sector to address the failures of the public sector that have, until now, resulted in female patients being underserved, understudied, underprotected, and unheard. Presented as a grassroots women's movement, FemTech's legitimacy and authenticity are further reinforced by the voices of female scientists, technology designers, and entrepreneurs interested in challenging the highly uneven and gendered healthcare landscape across different contexts and communities. The 'digital' form of FemTech lies at the heart of its appeal to 'democratise' access to healthcare for women, where digital access replaces expensive, time-consuming, or, in some instances, dangerous travel to physical healthcare facilities, where additional issues of gender and racial bias among medical experts and healthcare providers often arise.

FemTech's implicit promise to tackle structural inequalities in health by democratising access to healthcare for people who have historically suffered from health injustice is significant in terms of both policy and feminist legal research. FemTech's positioning within a broader movement of health justice and health equality raises several 'access' questions: What 'access' does FemTech offer, for whom, and where? Does 'access' to FemTech lead to the democratisation of 'access' to healthcare? Perhaps more significantly, how might feminist legal scholars think about and respond to FemTech? This article examines these questions to understand and reflect on FemTech's promise to address gender inequalities in healthcare. It departs from the current feminist conceptualisation of FemTech as a gendered technology of surveillance, offering an ontological and normative rethink of FemTech. The article makes two key arguments.

First, drawing from assetisation studies, it argues that FemTech should be conceived of as assets; that is, as digital products, technologies, and services spanning reproductive health, menopause, mental health, and beauty and wellness, which produce streams of income or value for financial investors (asset managers and venture capitalists) who own them. This reconceptualisation of FemTech opens new possibilities for feminist inquiry, placing financial capital, rather than gendered technology, at the centre of feminist analysis to explore how it facilitates, shapes, and frames FemTech, FemTech markets, and the broader landscape of healthcare



provision across different contexts. It argues that FemTech assets make visible the reproduction of—rather than a challenge to—structural health inequalities within and beyond the FemTech marketplace.

Second, using the consumer protection framework as a case study, it suggests that private financial capital shapes the legal framework of FemTech markets in line with the interests of asset managers and venture capitalists, where asset scalability and profitability—through income and/or data extraction from consumers—are the key goals. As a result, FemTech assets produce two distinct types of consumer access to the healthcare marketplace: 'democratised' access to healthcare solutions that are highly scalable and profitable, and access to health needs that is restricted, deprioritised, overlooked, or forgotten altogether due to their limited potential to serve the interests of financial capital. Thus, for feminist legal scholars considering law's responses to FemTech, this article highlights the urgent need to scrutinise and focus on financial capital, not just gender, and its power to govern FemTech markets and the wider healthcare landscape.

This article is structured as follows. To explain the novelty of theorising FemTech as assets, I first locate the current conceptualisation of FemTech as technology within broader scholarship on surveillance capitalism, outlining a new research path that the concept of FemTech as assets can offer to feminist legal studies. Second, I situate FemTech within broader studies on assetisation to articulate the intellectual foundation for conceptualising FemTech as assets. I then focus on the legal regime that supports and is shaped by FemTech assetisation. Using a case study on consumer protection, I examine how FemTech assetisation governs consumer access rights to the FemTech marketplace. I conclude by suggesting that FemTech assetisation governs and structures consumer access to FemTech markets in line with the interests of financial capital rather than public health needs, resulting in the further reproduction of structural health inequalities across contexts and communities.

# Feminist Studies on FemTech and Gendered Inequality

There has been a significant body of academic scholarship produced on the gendering of technology and technological advancement (Littleton and Hoyles 2002; Fox et al. 2006; Bray 2007; Landström 2007; Wajcman 2007; Wanggren 2017). Feminist scholarship has shown that the relationship between technological access and empowerment is neither simple nor straightforward (Layne et al. 2010). Some technological innovations may empower certain women, for example, by enabling them to enter professions traditionally held by men. Designing clothes, tools, and other gear suited for women to work in construction, auto repair, firefighting, or law enforcement, or developing medical technologies, such as knee replacements designed for women's bodies, can be considered more promising technological innovations (Layne et al. 2010). At the same time, technologies can produce disempowering effects, such as contributing to greater surveillance and the intensification of work, or even facilitating gendered violence (Johnson 2010). Marketing claims do not inherently make technology more equitable, nor does the superficial adaptation of technology to conform to dominant stereotypes of femininity (Layne et al. 2010).



After all, popular and marketing discourses, coated with ideas of female empowerment and liberation, have historically been used against women to facilitate capitalist extraction, suppress social movements, or trivialise and marginalise women's needs.

For instance, feminist research has shown how women's representation and concerns have been exploited through corporate marketing campaigns for profit. One example is the 1929 Easter "Freedom March" along Fifth Avenue, organised to honour suffragists, where women were encouraged to smoke their "torches of freedom" as part of a marketing strategy devised by Virginia Slims cigarettes (Johnson 2010). Another example is the infamous 1970s Nestlé campaign, in which infant formula was promoted in developing countries to 'allow' women to work outside the home. Due to contaminated water supplies in these countries, women who used the formula unknowingly endangered their babies (Sethi 2012).

Current academic research on FemTech draws on the feminist tradition in science and technology studies to reflect on and explore gender dynamics within FemTech markets. Conceived as gendered technologies, FemTech has been shown to produce gendered outcomes, such as gendered privacy harms, bodily harms, emotional harms, and socio-cultural norms. Most of this research falls within the broader scholarship on surveillance capitalism. Various terms have been used to describe these phenomena, including "intimate surveillance" (Levy 2015), "menstrual surveillance" (Gilman 2021), "reproductive health surveillance" (Prince 2022), "hormonal health surveillance" (Ford et al. 2021), and even "baby Veillance" (Barassi 2017). Feminist scholars have documented the ways in which women's intimate data is collected, analysed, and traded within the FemTech economy, exposing users to privacy harms, discrimination, and other threats linked to data misuse. For example, Gilman, who examined some menstruation apps, has argued that "menstrual surveillance" oppresses menstruators by depriving them of control over their data, generating sensitive data that can be used to discriminate against them, failing to safeguard their data, and reinforcing gender binaries and stigmas around menstruation (Gilman 2021). Other accounts have raised similar concerns in relation to dating, pregnancy, and fertility apps, sex toys, and wearables, adding that these technologies can also facilitate or increase domestic abuse, revenge porn, and other forms of physical and psychological violence against women (Levy 2015; Siapka and Biasin 2021; Hendl and Jansky 2022; Prince 2022; Raposo and Palmieri 2023; Stardust et al. 2023).

This has led feminist legal scholars to rethink concepts such as 'consent' to data collection and processing (Alaattinoğlu 2022), how 'disclosure' as a regulatory safeguard is deployed (Fowler 2021), how menstrual justice can be incorporated into the design and operation of FemTech (Gilman 2021), and even the possibility of introducing wages for women's data work (Siapka and Biasin 2021).

In addition to contributing to the critique of surveillance capitalism, feminist socio-legal scholarship has expressed concerns regarding FemTech's potential to cause bodily harm. Calling for a more stringent regulatory approach towards FemTech, feminist scholars have found the current 'buyer-beware' approach to be wholly unsatisfactory. For example, in her extensive analysis of health apps that are freely downloadable in the USA, Fowler found them to be largely unregulated and unsupervised (Fowler 2021). These unregulated "digital snake oil" apps, as she



calls them, are sold and available for download alongside regulated medical devices and telemedicine tools, making it exceedingly difficult for consumers to distinguish between products and services that help and those that cause harm (Fowler 2021, 67). In another study of fertility-tracking apps, Taylor expressed concerns about the lack of regulatory oversight of FemTech apps used for contraception, as they render users vulnerable to unwanted pregnancies and serious health risks (Taylor 2021). Similar regulatory inadequacies were noted in the UK by McMillan in her study of digital contraceptives (McMillan 2023). Others have also raised concerns about the effectiveness and reliability of various FemTech technologies, as well as the increased consumer exposure to health misinformation and mis-selling, which can cause serious health risks for users (Thomas and Lupton 2016; Alaattinoğlu 2022; Patton et al. 2022).

Although these feminist accounts have usefully unveiled the gendered risks and harms that FemTech presents, they all centre their analysis on FemTech's technological impact, whether positive or negative, on its users. The key question being asked is: what outcomes does FemTech generate for its users? What new technological or functional challenges does FemTech create? In other words, FemTech is ontologically understood and approached as technology. If FemTech is a gendered technology, this prompts a very particular normative orientation for feminist sociolegal inquiry; that is, what outcomes does this gendered technology generate, and how should the law respond to what the technology does? This line of reasoning leads to reflections on the regulation of technological design, features, functionality, use, and impacts, including how gender inequality is conceptualised and enacted through technology. However, this conceptualisation of FemTech is ontologically and normatively limited, as it fails to consider the assetisation of FemTech, which reproduces existing structures of gendered inequalities in health and healthcare.

Placing FemTech not only within the context of surveillance capitalism but also within the workings of financialised capitalism allows for a feminist socio-legal analysis that considers and pays attention to the ways in which assetisation shapes and structures FemTech markets. If we conceptualise FemTech not merely as technology but also as assets, we can begin to examine, respond to, and challenge the structures of gendered inequalities that underpin and are deeply embedded in the legal construction of FemTech markets.

To put it differently, placing assets at the centre of feminist inquiry allows us to see how the interests of private financial capital, which are essentially the main owners of FemTech assets, underpin and shape the life and governance of FemTech, its access, and the wider structures of healthcare. An ontological reconceptualisation of FemTech as assets opens a new and exciting research agenda within feminist sociolegal studies on FemTech, providing opportunities to explore how the entanglement of law and assets constructs and sustains the production, ownership, use, and exploitation of FemTech assets. It also allows for further theorisation and a normative reorientation toward disentanglement possibilities that are hopefully more equitable and fair. Drawing on assetisation studies, the following section sets out some of the key insights used to think through FemTech as assets, to which I shall now turn.



#### Assetisation Studies and FemTech

Academic scholarship on assetisation is rich, interdisciplinary, and covers diverse traditions and methodological perspectives: from classical institutional economics (Commons 2017; Birch and Muniesa 2020) and critical political economy (Harvey 2006; Ireland 2012) to social studies of finance (Martin 2002; Muniesa et al. 2017; Montgomerie 2020). While these fields approach assets and assetisation somewhat differently, they broadly share a consensus on what assetisation is. Assetisation is largely defined as the process and practice of turning all manner of things into revenue-generating assets. Asset formation thus entails the creation of property that will afford a recurring revenue stream for the property owner (Birch and Muniesa 2020).

Assetisation has been productively used to understand how financialised capitalism is restructuring economic activities, housing, households, and many other core institutions of social provisioning, such as retirement provision, social welfare, education, childcare, elderly care, and even urban infrastructures of transportation, energy, telecommunications, and other public utilities (O'Neill 2013; Starosta 2016; Dowling 2017; Horton 2020; Gallagher 2021; Strauss 2023). Assetisation helps us understand the flows of private capital as well as the ways in which these flows restructure and reshape the spaces, social relations, and governance practices needed to mobilise and exploit assets (Adisson 2018). Much of this important work explores the assetisation and financialisation of our physical infrastructures and environments, including health and healthcare provision (Stein and Sridhar 2018; Cordilha 2022; Mosciaro et al. 2022). Recent work on the assetisation and financialisation of physical healthcare infrastructures demonstrates similar patterns: asset managers' investment results in increased fees for healthcare patients, reduced quality of healthcare, and/or reduced medical staff costs at the expense of care quality and safety (Brown and Hall 2024). Recently, assetisation studies have also turned their attention to the ways in which digital infrastructures and platforms are deployed to reorder social reproduction and social life. For example, scholars have shown how digital assetisation through companies like Airbnb, Uber, and Amazon has restructured urban spaces, housing, and working practices in a highly uneven and exploitative fashion (Wachsmuth and Weisler 2018; Sadowski 2020).

FemTech, much like Airbnb, Uber, and other digital platforms, has been subjected to assetisation practices, yet assetisation studies have not been applied to examine FemTech or map out the ways in which financialised capitalism is structuring the FemTech marketplace. When I say that FemTech is being assetised, I refer to the monetisation of FemTech digital products, services, and software, whereby FemTech companies extract recurring income streams, either through subscription fees or data from FemTech consumers. Assetisation, however, should not be confused with commodification. To commodify something is to make it exchangeable (Birch and Ward 2022). Economic geographer Langley describes assets as neither commodities of exchange nor simple private property for rent and appropriation, since they are, and should be, placed at the very centre of the logics, practices, and techniques of modern financial investment (Langley 2020). As he puts it:



"Assetisation is thereby an alternative to concepts of commodification and marketization that, deployed to understand the making of financial economies, arguably lead to an over-emphasis on secondary exchange and speculative trading on prices. Processes of assetisation are inseparable from 'capitalisation' as 'a technique for prospective valuation' [...] wherein, from the perspective of investors (rather than traders), 'financial value amounts to a future return anticipated through a calculation of the cost of capital rather than to a "price" given to the asset on the market" (Langley 2020, 6).

In the context of FemTech markets, commodities in FemTech refer to products or services that can be bought and sold in a market. These have a one-time exchange value, meaning users purchase a product or service for immediate use. Examples include purchasing a digital health kit (such as a bacterial vaginosis test) or a gynecological device for home use. In contrast, FemTech assets are items that generate ongoing or future value. Through assetisation, a FemTech product or service is transformed into a revenue-generating entity that promises value over time, particularly for investors. FemTech assets include digital software, platforms, services, or products that produce income streams or value beyond their immediate utility. These are monetised through ongoing models, such as subscriptions (SaaS), data extraction (pay-with-data), and/or advertising. So, how can this conceptualisation of FemTech as assets advance existing feminist analyses of FemTech and FemTech markets?

Assetisation studies offer valuable analytical and conceptual tools to examine how financial extraction and structural inequality are reproduced through FemTech assets. More broadly, assets—and their construction, movement, management, and disposal—have been feminist issues for decades. While second-wave feminists sought social justice through the redistribution of money, primarily via income redistribution, the current neoliberal restructuring has prompted feminists to refocus their attention on assets (Adkins 2018a). Since the late 1970s, in most Global North countries, it has been shown that inequalities are largely driven not by income inequality from wage labour but by inequality in income-generating assets (Piketty 2014). Thus, understanding how assets emerge, who designs, manages, and owns them, as well as who can access them and on what terms, has become a pressing feminist concern within the broader scholarship on financialised capitalism and social studies of finance (Aalbers 2016; Adkins 2018b). While examining how modern financialised capitalism reproduces gender wealth inequality through assets has been a significant focus within feminist finance studies, assetisation scholarship has shown that assetisation also generates or perpetuates inequalities across broader realms of social reproduction and social life.

In his work on rentier capitalism, Christophers has shown that contemporary wealth accumulation is based on the control and extraction of rents from assets rather than on the production of goods and services (Christophers 2021). In such a rentier economy, owning and controlling assets—such as land, natural resources, intellectual property, financial, or digital infrastructure—is the key to wealth generation. According to Christophers, the rentier extracts rent not by creating value but by charging others for the use of assets they control. Christophers distinguishes between profit (from productive activity) and rent (from ownership or control over



assets). A rentier does not need to produce anything; they simply extract wealth by granting others access to resources or infrastructure they control. Christophers argues that this form of capitalism exacerbates inequality and stifles innovation, as rent-seeking behaviour often leads to monopolisation and wealth concentration. Moreover, it creates a system where wealth is increasingly detached from productive economic activities and instead becomes tied to ownership and control over critical assets (Christophers 2021).

In his most recent work on asset manager society, Christophers demonstrates that key physical, financial, and digital infrastructures (including water-supply networks, roads, hospitals, electricity-transmission grids, schools, bridges, wind farms, homes, and digital platforms) in Global North countries are currently owned and controlled by professional asset managers—such as pension funds, insurance companies, and sovereign wealth funds—who are key players and drivers of assetisation, responsible for maximising returns on these assets, primarily through scaling and asset growth (Christophers 2023a). This dominance of asset managers, Christophers argues, has significant social consequences, as those who control assets (and the capital to invest in them) accumulate wealth, while those without access to assets are increasingly marginalised, exacerbating existing inequality (Christophers 2023b).

The assetisation patterns observed by Christophers in some segments of our economies have also emerged in the FemTech marketplace. FemTech digital products are developed, designed, produced, marketed, and sold by privately owned FemTech enterprises, which extract fees and data from FemTech users in exchange for access. The ability to monetise FemTech products, services, or software through fees, data sales, or both largely depends on whether FemTech companies can attract funding from venture capitalists and asset managers. Consequently, placing the financial needs and metrics of venture capitalists and asset managers at the centre of both the development and scalability of FemTech has become a defining feature of the FemTech economy (Women of Wearables 2022; Stewart et al. 2023). Over the last several years, FemTech has attracted substantial funding from asset managers, who consider women's health a highly lucrative and recession-resistant market (Stewart 2023). FemTech companies that have managed to grow an extensive international user base and operate across multiple jurisdictions have all been funded by asset managers (Orser et al. 2020; Chakraborty et al. 2024). For example, female health apps such as Flo, Clue, Natural Cycles, Ovia, Glow, Grace Health, Folx Health, Caria, Joylux, Kindbody, Elektra Health, Vira Health, Maven Clinic, AiVF, Aquafit, Gina Life, Illumigyn, Ocon Healthcare, Tulipon, Peequal, Amilis, Adora, Unfabled, Bea Fertility, Albatus Therapeutics, Hertility, Tuune, Verso Biosense, Viramal, Kasha, Whispa Health, and Nabta Health, which attract significant downloads on Google Play and Apple's App Store, have all been funded by asset managers, with some undergoing multiple rounds of funding.

While these observations on FemTech assetisation are important for making wealth extraction practices visible within the FemTech marketplace, how can they be utilised by feminist legal scholars interested in the regulation and governance of FemTech? Scholarship on assetisation and law, particularly the work of Pistor, Angeletti, and Lemoine, has been instrumental in articulating and theorising the entanglement of law and assets. In *The Code of Capital*, Pistor argues that capital



and wealth are not inherent properties of physical resources or financial instruments but are instead coded through legal mechanisms (Pistor 2019). The law—particularly through contracts, property rights, corporate law, and financial instruments—'codes' resources into assets. This coding process transforms something into capital by endowing it with key legal characteristics: priority (legal claims over others), durability (long-lasting value), universality (global enforceability), and convertibility (ability to trade for other forms of value) (Pistor 2019).

However, more importantly, not only does law underpin and support assetisation and financialisation—these processes should be understood as forms of law. Angeletti and Lemoine have argued that assetisation and financialisation impose rules, logic, and principles on people, societies, and institutions to align them with the needs and concerns of financialised capitalism (Angeletti and Lemoine 2021). In other words, "law can be considered as finance" just as "finance can be considered as law" (Angeletti and Lemoine 2021, 184). When Angeletti and Lemoine (2021) argue that finance can be considered as law, they emphasise that financial institutions and actors govern resource distribution not only through economic power but also through the legal structures they control or manipulate (Angeletti and Lemoine 2021).

To understand, therefore, how FemTech assetisation allocates and distributes resources within FemTech markets and the broader impact this has on women's healthcare, we must also map and interrogate the legal structures that enable and support FemTech assetisation—an issue I will explore next.

### **Consumer Protection and FemTech Assets**

There are several ways to approach the study of FemTech's intimate entanglement with law and private financial capital. For example, research could examine the framework of FemTech asset ownership, investigating how ownership rights structure and protect the flow of future revenue from these assets. Equally important might be a study of how the exercise of asset ownership rights (by FemTech companies) is linked to the ownership of financial assets (FemTech shares) and the rights and responsibilities (or lack thereof) of asset managers who invest in and become shareholders of FemTech companies. Inspiration could be drawn from extensive prior work demonstrating how financial asset protection laws facilitate investors' exploitation of social reproduction (Ireland 2009, 2011, 2012). Other important research avenues might explore the constitution, distribution, enactment, and enforcement of intellectual property (IP) rights—largely copyrights and patents awarded to FemTech—across various contexts of use and operability of FemTech assets.<sup>2</sup> Another possibility could be examining tax rights and obligations that are

<sup>&</sup>lt;sup>2</sup> Important studies on the expansion of the IP rights of the Big Tech companies in relation to the health-care sector have been conducted (Rikap 2022, 2023) but similar studies on FemTech are yet to emerge.



indexed to or separated from the life and movements of FemTech assets.<sup>3</sup> Equally valuable would be developing a deeper understanding of the legal regime governing those involved in the 'servicing' of FemTech assets, whether by 'cleaning' them or 'working' for them.

In advancing the study of law and FemTech assets, I suggest beginning with consumer protection rights. Placing consumer protection at the centre of my analysis of FemTech assets might indeed seem an unusual choice. After all, FemTech consumers are neither owners nor major managers of FemTech assets; yet, most existing studies on assetisation examine legal rights and obligations related to assets through the lens of ownership (Frankel 2009; Pagliari et al. 2020; Tellmann 2022; Wyczik 2024). However, assets are engaged with in various ways beyond ownership: they are not only owned but also accessed, used, serviced, developed, expanded, altered, or destroyed. Rights and obligations regarding assets vary depending on these different interactions. Thus, my focus on consumer protection and consumer access rights to FemTech assets aims to concretely illustrate how the analysis of law's entanglement with FemTech assets could be broadened and further theorised, moving beyond the dominant framework of ownership.

A consumer protection framework is essential for FemTech assetisation. Consumer rights and protections granted through consumer law and private contractual agreements are key to ensuring that consumers can access and actively and safely participate in FemTech markets. FemTech companies rely on consumers—their fees and data—to monetise FemTech products, services, and software. Business models such as "software-as-a-service" (SaaS) or "pay-with-your-data," underpinned by consumer legal contracts, are used to assetise FemTech. These consumer contracts authorise and legitimise the collection and/or sale of fees and/or data from consumers within the FemTech marketplace, which is central to FemTech assetisation. This legal framework of protection is further supported by public policy (Ludwig 2024; Rauch et al. 2024) and marketing campaigns that associate consumer access to FemTech with healthcare democratisation, assumed to yield redistributive effects for women consumers whose healthcare needs have historically been underprioritised, underfunded, and under-researched. Over the years, however, consumer law scholarship has carefully documented the risks of focusing solely on formal consumer access rights without examining how these materialise in the marketplace.

In consumer law scholarship, the question of consumer access to the marketplace and its regulation has arguably been one of the principal concerns for several

<sup>&</sup>lt;sup>5</sup> For example, recent studies have examined how the rights of medical and healthcare workers have been impacted by mobile health technologies (Khan 2016). Similar studies in relation to FemTech are yet to be done.



<sup>&</sup>lt;sup>3</sup> Some very interesting studies in critical fiscal studies and law have emerged that examine the difficulties of taxing transnational assets. It does not look at FemTech specifically, but does provide a rich set of potential questions that could also be examined in relation to FemTech by scholars interested in taking this research agenda further (Quentin 2017; Quentin 2020, 2022).

<sup>&</sup>lt;sup>4</sup> Recent research has helpfully documented the working conditions of content moderators who clean content for international platforms (Drootin 2021). Similar studies on FemTech content would be helpful, given the nature of data that needs to be 'cleaned'.

decades, tracing back to the post-war era (Rickett and Telfer 2003; Ramsay 2012; Fitzgerald et al. 2020). This focus stems largely from the growing significance of capitalist markets in both Global North and Global South countries (Harvey 2006; Gabriel and Lang 2006; Doogan 2009; Spooner 2019). The gradual expansion of consumer markets into social, economic, political, and cultural spheres previously dominated and funded by the state has intensified scholarly and policy interest in how consumers access markets and the types of marketised goods and services available to them. While the legal importance of consumer access to the marketplace is now widely recognised, its meaning has not always been clear.

For example, the liberal perspective views consumer access as simple inclusion in the marketplace. Most consumer law interventions are based on this tradition and primarily seek to address barriers to consumer entry. Product labelling requirements and disclosures are perhaps the most common examples of legal responses to access restrictions (Silverglade 1991; Currey 2016; Pappalardo 2022). Anti-discrimination laws have also played a significant role in removing access barriers for groups historically excluded from markets (Wilson 2012; Collins 2013). Simultaneously, consumer access to certain markets, products, and services has been banned or restricted in response to various mis-selling scandals (MacNeil 2012; Williams 2012; Georgosouli 2014; Park 2019) and concerns over safety (Sanders et al. 2009; Van Loo 2022) and economic stability (Ramsay and Williams 2009; Zokaityte 2017).

Interestingly, despite its liberal roots, consumer law and policy often consider market access as a mechanism capable of producing broader societal and distributional effects, such as alleviating or reducing poverty, disadvantage, and inequality. This perspective is perhaps most vividly expressed in discussions on privatisation, where state-guaranteed access to healthcare (Hall 2006), education (Kamvounias and Varnham 2006), social care (Clarke 2006), and retirement provision (Mann 2006; Oehler and Werner 2008) is normatively linked to consumer access to market-place-driven social welfare services.

More critical perspectives on consumer access caution against such optimism. Consumer access to market institutions does not always translate into broader social benefits, nor should the reverse be assumed. Although formal consumer legal frameworks often presume that consumer access to markets equates to access to needed resources, empirical evidence suggests that the terms and conditions of this access often vary significantly across consumer populations (Ramsay 2006, 2012; Riefa and Saintier 2020; Raghavan 2022). In other words, abstract conceptualisations of consumer access can obscure the structures and practices within the marketplace where resource allocation occurs. Thus, critical consumer law scholarship conceptualises consumer access as extending beyond mere marketplace inclusion, acknowledging that it is experienced differently by various consumers and within different market structures (Ramsay 1991, 2012; Herrine 2022).

To understand and assess consumer protection and consumer access rights in FemTech markets, we must also examine the marketplace structures, where assetisation, I argue, plays a crucial role in shaping these structures. If we analyse such structures, I contend, we begin to see how FemTech assetisation frames consumer access narrowly—namely, as access solely to the FemTech marketplace rather than to broader conditions of health justice. This narrow framing of consumer access



skews the distributional potential of protections against health inequalities, disadvantaging those whose healthcare needs do not align with the logic and practices of FemTech assetisation. Specifically, it marginalises women's health needs and priorities that cannot be easily scaled or yield immediate, high profits for asset managers. I further develop and substantiate this argument by drawing on debates in public health research regarding venture capital and asset manager funding in healthcare. This exploration illustrates how assetisation, with its emphasis on scalability and immediate profitability, shapes consumer access to FemTech markets.

### **Aligning Consumer Access with the Interests of Financial Capital**

Empirical evidence on venture capital and asset manager funding in healthcare technology markets demonstrates that neither health inequalities nor broader health concerns drive asset managers' investment decisions or their management of healthcare companies, including those in the digital healthcare sector (Lehoux et al. 2016). In fact, asset managers view healthcare technologies as merely another form of consumer product, with value defined purely by market capture, rather than by the needs of marginalised groups or national healthcare systems. Market capture is geared toward global, rather than national, reach, making healthcare innovations that cannot achieve global scalability unlikely to receive funding (Lehoux et al. 2016). Furthermore, "by controlling when money is made available and for what types of design priorities," asset managers influence the refinement and development of healthcare technologies (Lehoux et al. 2016, 380).

Similar tendencies are also observed in FemTech markets. Recent empirical studies on FemTech companies operating across diverse healthcare contexts have documented various limitations on consumer access, which, I suggest, can be understood and explained through FemTech assetisation. In other words, FemTech assetisation shapes and directs consumer access, resulting in specific limitations and accessibilities. Let us consider some examples to illustrate how this plays out in practice.

### 'Digital' Access Limitations

A clear example of access limitations is the 'digital' access model employed by most FemTech companies. While FemTech is marketed as a more accessible form of healthcare for women, it operates under the assumption that women have easy access to the internet and a smartphone. This, however, is not the case in certain regions of both developed and developing countries, where internet and/or mobile phone access is restricted, limited, or irregular. Sundin et al. (2016, 448) explain that, for example, "most cell phones used in the developing world are simple hand-sets with limited computing power, memory, text message length, and language capabilities...[and] internet bandwidth is both scarce and expensive," in addition to being slower than in some developed countries.

Populations in developed countries, particularly the elderly and those with lower incomes who often have significant healthcare needs, also face challenges in



accessing reliable and affordable internet and mobile phone connections (Digital Poverty Alliance 2022; NHS Digital 2022). Emerging empirical evidence suggests that the shift from physical to digital healthcare—felt especially acutely during and after the COVID-19 pandemic—has generated new healthcare inequalities and disadvantages for those experiencing digital poverty (Chesser et al. 2016; Verma et al. 2022; Espinosa et al. 2023). Currently, there is no empirical evidence indicating that FemTech has invested in building or improving digital healthcare access for digitally marginalised and disadvantaged communities. Instead, FemTech primarily relies on existing digital networks and infrastructure to expand access for consumers who are already digitally included. Nor does FemTech typically seek to create offline access options, which might be particularly important for women experiencing or fleeing from domestic abuse (Brown et al. 2018; Mishra et al. 2023).

### **Groups Not Targeted for Access**

It is equally important to document access that is non-scalable, either because the healthcare needs and concerns of particular groups are marginal or because asset managers consider them to be so. Feminist queer studies on FemTech have examined certain FemTech products (especially menstruation apps and digital sex toys) to show how they reinforce normative femininity and primarily cater to the reproductive healthcare needs of cisgender, heterosexual women (Hendl and Jansky 2022; Albury et al. 2023). Some research also reveals that FemTech fails to provide adequate access for individuals with diverse accessibility needs (Ollila 2023). Further studies show that a significant portion of FemTech, developed in both the Global North and the Global South, tends to support only a limited range of languages-specifically, those considered main spoken languages in each respective region (Anto-Ocrah et al. 2023). For instance, most FemTech apps in India default to English, with some also available in Hindi, overlooking the needs of communities speaking regional languages (Mishra et al. 2023). Similar concerns have been noted in Kenya, Nigeria, Ghana, and Tanzania (Al Dahdah 2021; Neumark and Prince 2021; Al Dahdah 2023).

Even apps designed specifically for particular countries to address specific healthcare needs have been shown to inadequately address contextual healthcare differences between digital advice and actual practice. For instance, consider the gap between the recommendations of Motech, an app developed to improve maternal health among women in India and Ghana, and the real, concrete healthcare facilities in these countries:

"Motech promotes access to brief health information, but it does not address the main barriers to accessing care in rural Ghana and India. Financial and geographical accessibility of healthcare, conflicting relationships with health workers, or with the community, constitute barriers that women in rural Ghana and India struggle to overcome" (Al Dahdah 2021, 51).



While these studies do not represent a complete picture of all access challenges, they highlight notable patterns, suggesting that access to healthcare technologies is generally not extended to communities and contexts that either represent markets too small to scale or require substantial investment to build and develop physical healthcare infrastructure (Sell 2019).

### **Groups Over-Targeted for Access**

Although FemTech markets are often presented as addressing the diverse, unmet healthcare needs of women, current trends in asset managers' investment in FemTech reveal clear investment priorities. Women's healthcare needs, as reflected in asset managers' funding priorities, are largely narrowed down to three categories: general wellness (beauty), reproductive health, and family planning/menstrual care. Globally, between 2018 and 2023, FemTech providing general wellness care attracted \$2.2 billion in investment, while reproductive health and family planning received \$1.1 billion and \$1.15 billion, respectively (DealRoom 2023). Interestingly, FemTech targeting chronic illness attracted only \$17 million during the same period, significantly less than even the least-funded categories in sexual health (\$68 million), menopause (\$83.8 million), or nutritional health (\$112.3 million) (Dealroom 2023).

What these top three venture capitalist-favoured FemTech markets have in common is their orientation towards higher-income female users who have the resources to invest in future-oriented, risk-focused, and pre-emptive healthcare interventions (Van de Wiel 2020; Fowler 2021; Patton et al. 2022; Mathiason 2023; Mishra et al. 2023). Access to such speculative FemTech, which often requires consumers to make health-related decisions and assess various risks without the opportunity to consult a medical professional, creates fertile ground for potential mis-selling. In addition to emerging evidence of mis-selling<sup>6</sup> within wellness-focused FemTech markets (Patton et al. 2022), reproductive health and infertility treatment are experiencing what van de Wiel calls "a speculative turn" in infertility treatment. She argues that healthcare institutions are increasingly focusing not only on treating "current experiences of infertility" but on "pre-emptive and proactive treatment of future infertility" (Van de Wiel 2020, 306). This shift towards proactive infertility treatment is linked to financialisation, as private equity and asset manager-funded fertility clinics—whether digital or physical—are increasingly offering fertility treatments to patients who do not need them (van de Wiel 2020). Such instances of mis-selling are neither new nor exclusive to the FemTech marketplace. Previous studies have documented increased cases of over-testing, over-diagnosis, and unnecessary treatments within privately funded and operated healthcare settings (Morgan et al. 2015; Nundy et al. 2018; Hunter and Murray 2019; Field et al. 2023; Henry and Loomis 2023).

<sup>&</sup>lt;sup>6</sup> There is a significant amount of evidence about the limited abilities of consumers to make decisions that involve considering and calculating the contextual and future risks related to their decisions (Willis 2006; Cartwright 2015; Richards et al. 2022).



#### Overlooked Healthcare Needs and Health Research

The examples analysed above demonstrate how FemTech assetisation includes, excludes, or limits consumer access to FemTech markets for specific groups and contexts. However, I argue that FemTech assetisation raises broader concerns related to health and healthcare; these concerns extend beyond market access issues and impact the larger landscape of healthcare provision. As Storeng et al. explain, historically, most healthcare innovations were almost exclusively funded by the state, which meant that public institutions directed funding toward innovations addressing public health needs and priorities (Storeng et al. 2021). Today, however, the public sector is virtually absent from funding recent innovations in digital healthcare provision (Storeng et al. 2021). As previously mentioned, this results in funding being directed toward digital health innovations with the greatest potential for global market capture, rather than necessarily responding to public health concerns of particular population groups or geographical areas (Hunter and Murray 2019). Empirical evidence on asset managers' decision-making in healthcare markets shows that scalability and profitability, rather than public health needs, guide investment decisions and the operations of healthcare companies funded by asset managers:

"...an emerging venture that shows an important potential to grow swiftly is what investors covet (i.e., a venture whose core technology is likely to address large markets and/or multiple clinical indications). But, at a later stage, the investors' goal is to make a profitable exit happen, and the downsizing of the venture and of its R&D activities is what makes it sellable. Unsurprisingly, technology developers may feel deceived by transformative actions that alter the scope of the planned R&D activities" (Lehoux et al. 2016, 381).

This quote from one healthcare technology developer illustrates the frustration resulting from intentional and strategic disinvestment in innovations that would serve smaller markets:

"Because the market is too small, the company finally decided not to adapt the product for small children. That's an example where companies know they could help but won't do it because of the market. This part is really saddening for an engineer...but from a business standpoint, it's a niche, and people and investors don't want to go down that route. Thus, the government must find a system to help develop those small markets" (Lehoux et al. 2016, 381).

While asset managers' refusals to cater to niche markets may not be surprising, it is concerning that public health authorities, including global organisations such as the World Health Organization (WHO) and the United Nations, actively encourage and support the roll-out of digital health solutions across communities despite any empirical evidence of real health benefits for the wider population (United Nations 2021; WHO 2021). In fact, the selective funding of health innovations driven by the financial interests of asset managers produces segmented access to healthcare, which is known to be highly inequitable and regressive (Murray and Elston 2005; Birn et al. 2016; Rotarou and Sakellariou 2017).



These insights reveal that consumer access to both the FemTech marketplace and broader healthcare conditions aligns with the logic and principles of assetisation. On one hand, financial capital facilitates the expansion of consumer access to FemTech markets with the potential to generate future income streams for asset managers, creating dangerous incentives for over-inclusion and mis-selling within the marketplace. On the other hand, investments in healthcare technologies that serve marginal healthcare needs and populations are deprioritised, overlooked, or ignored altogether due to their low profit and scalability potential. These varied manifestations of assetisation's influence on consumer access reveal how gendered health inequalities are produced and sustained within and beyond FemTech markets, calling into question FemTech's promise to challenge and address structural health inequalities.

#### Conclusion

This article has introduced a novel conceptual approach to the study of FemTech. Examining FemTech through the assetisation framework has generated fresh insights for current scholarly discussions on FemTech in two distinct fields.

For feminist legal studies, it offers an alternative research agenda on FemTech. This approach does not diminish the significance of the currently dominant perspective that views FemTech as gendered technology. Instead, the article seeks to offer the analytical framework of assetisation to complement the gender analysis of FemTech and FemTech markets. The ontological reconceptualisation of FemTech as assets broadens current feminist inquiries beyond legal questions concerning technology-based harms of FemTech. Assetisation provides valuable analytical tools to make visible and interrogate the practices of financial capital, its structuring power over the FemTech marketplace, and the ways in which it shapes the broader landscape of healthcare provision. Furthermore, conceiving FemTech as assets creates a conceptual pathway to further theorise the distributional effects of FemTech. While gender as an analytical category is useful in examining how gendered technologies produce gendered outcomes (such as gendered data extraction, harm, or cultural norms and practices), the assetisation framework allows us to connect the regressive distributional effects of FemTech markets to the practices and logic of financial capital. In other words, focusing on assetisation highlights the arguably irreconcilable tension between the demands of financial capital and the needs of broader healthcare systems. Consequently, increasing and expanding consumer access to FemTech markets is unlikely to alleviate gendered health injustices for those experiencing various health inequalities across different contexts and communities.

For consumer law scholarship, this article offers the first study of consumer protection within the FemTech marketplace. Specifically, it explores the question of consumer access to FemTech markets—namely, what kind of access is being offered, for whom, and how. The article shows that FemTech assetisation structures and directs consumer access to FemTech in alignment with the interests of financial capital, not public health concerns, promoting scalable and profitable access while deprioritising the rest. By mapping specific instances of FemTech assetisation's influence on consumer access rights, this article reveals the ways in which structural



health inequalities are reproduced, calling into question FemTech's promise to democratise healthcare access for women. However, further studies in consumer protection are needed to understand how assetisation limits and restricts consumer access to FemTech across different jurisdictions and contexts. Additional investigations are also necessary to examine how assetisation facilitates consumer over-inclusion in the FemTech marketplace, where the potential for FemTech mis-selling and resulting consumer harm may be growing.

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#### References

Aalbers, Manuel B. 2016. The Financialization of Housing: A Political Economy Approach. Routledge: CRC Press.

Adisson, Félix. 2018. From State Restructuring to Urban Restructuring: The Intermediation of Public Landownership in Urban Development Projects in France. *European Urban and Regional Studies* 25(4): 373–90.

Adkins, Lisa. 2018a. Money: A Feminist Issue. Australian Feminist Studies 33(96): 167-71.

Adkins, Lisa. 2018b. The Time of Money. Stanford: Stanford University Press.

Al Dahdah, Marine. 2021. From Ghana to India, Saving the Global South's Mothers with a Digital Solution. *Global Policy* 12(6): 1.

Al DahDah, Marine. 2023. Top Up Your Healthcare Access Mobile Money to Finance Healthcare in Sub-Suharan Africa. In Financialisations of Development: Global Games and Local Experiments. London: Routledge.

Alaattinoğlu, Daniela. 2022. Rethinking Explicit Consent and Intimate Data: The Case of Menstruapps. *Feminist Legal Studies* 30(2): 157–79.

Albury, Kath, Zahra Stardust, and Jenny Sundén. 2023. Queer and Feminist Reflections on Sextech. Sexual and Reproductive Health Matters 31(4): 2246751.

Allen, Dr Jessica. 2018. Health Inequalities and Women. British Medical Association 56: 10.

Angeletti, Thomas, and Benjamin Lemoine. 2021. The Laws of Finance for a Sociology of Finance and Law Entanglement. *European Journal of Sociology/Archives Européennes de Sociologie* 62(2): 183–212.

Anto-Ocrah, Martina, Mercy Asiedu, Simrun Rao, Lindsey DeSplinter, and Stefanie Hollenbach. 2023. If You Build It, They Will Come...or Not. Considerations for Women's Health in the Post-Pandemic Era of Digital Innovation. *Frontiers in Public Health* 11: 1–7.

Barassi, Veronica. 2017. Baby Veillance? Expecting Parents, Online Surveillance and the Cultural Specificity of Pregnancy Apps. Social Media Society 3(2): 2056305117707188.

Birch, Kean, and Fabian Muniesa. 2020. Assetization, 2020. Cambridge: MIT Press.



- Birch, Kean, and Callum Ward. 2022. Assetization and the "New Asset Geographies." *Dialogues in Human Geography* 14: 9.
- Birn, Anne-Emanuelle., Laura Nervi, and Eduardo Siqueira. 2016. Neoliberalism Redux: The Global Health Policy Agenda and the Politics of Cooptation in Latin America and Beyond. *Development and Change* 47(4): 734–59.
- Bray, Francesca. 2007. Gender and Technology. Annual Review of Anthropology 36: 37–53.
- Brown, Erin C Fuse., and Mark A. Hall. 2024. Private Equity and the Corporatization of Health Care. *Stanford Law Review* 76(March): 527–596.
- Brown, Megan Lindsay, Lauren A. Reed, and Jill Theresa Messing. 2018. Technology-Based Abuse: Intimate Partner Violence and the Use of Information Communication Technologies. In *Mediating Misogyny: Gender, Technology, and Harassment*, ed. Jacqueline Ryan, 209-227. Vickery and Tracy Everbach, Cham: Springer.
- Cartwright, Peter. 2015. Understanding and Protecting Vulnerable Financial Consumers. *Journal of Consumer Policy* 38(2): 119–38.
- Chakraborty, Imon, K. Nandhini, P. Vigneswara Ilavarasan, and Sisira Edirippulige. 2024. Factors of Front-End Innovation in Fem-Tech Startups: An Empirical Study. *Technology in Society* 76(March): 102410.
- Chesser, Amy, Anne Burke, Jared Reyes, and Tessa Rohrberg. 2016. Navigating the Digital Divide: A Systematic Review of eHealth Literacy in Underserved Populations in the United States. *Informatics for Health and Social Care* 41(1): 1–19.
- Christophers, Brett. 2021. Class, Assets and Work in Rentier Capitalism. *MHistorical Materialism*. https://doi.org/10.1163/1569206X-29021234.
- Christophers, Brett. 2023a. Our Lives in Their Portfolios: Why Asset Managers Own the World. Books on the Hill. 2023. https://www.books-on-the-hill.co.uk/science-technology/our-lives-in-their-portfolios-why-asset-managers-own-the-world-by-brett-christophers.
- Christophers, Brett. 2023b. The Rentierization of the United Kingdom Economy. Environment and Planning A 55(6): 1438–70.
- Clarke, John. 2006. Consumers, Clients or Citizens? Politics, Policy and Practice in the Reform of Social Care. *European Societies* 8(3): 423–42.
- Collins, Hugh. 2013. The Vanishing Freedom to Choose a Contractual Partner. *Law and Contemporary Problems* 76(2): 71.
- Commons, John R. 2017. Legal Foundations of Capitalism. New York: Routledge.
- Cordilha, Ana Carolina. 2022. Financialisation and Public Health Systems: A New Concept to Examine Ongoing Reforms. *Économie et Institutions*, No. 30–31 (September).
- Currey, Camille. 2016. Despite What You've Been Sold—Unwrapping the Falsities Surounding Food Labels. West Virginia Law Review 118(3): 1279–1312.
- DealRoom. 2023. 'Femtech'. Dealroom.Co. 2023. https://dealroom.co/guides/femtech.
- Digital Poverty Alliance. 2022. UK Digital Poverty Evidence Review 2022 Introduction. Digital Poverty Alliance. 2022. https://digitalpovertyalliance.org/uk-digital-poverty-evidence-review-2022/introduction-myths-and-shifts/.
- Doogan, Kevin. 2009. New Capitalism? Polity.
- Dowling, Emma. 2017. In the Wake of Austerity: Social Impact Bonds and the Financialisation of the Welfare State in Britain. *New Political Economy* 22(3): 294–310.
- Drootin, Anna. 2021. "Community Guidelines": The Legal Implications of Workplace Conditions for Internet Content Moderators. Fordham Law Review 90(3): 1197–1244.
- Espinosa Zárate, Zarate, Celia Camilli Trujillo, and Jesus Plaza-de-la-Hoz. 2023. Digitalization in Vulnerable Populations: A Systematic Review in Latin America. *Social Indicators Research* 170(3): 1183–1207
- Field, Robert, Barry R. Furrow, David Hoffman, Kevin Lownds, and Hilary Pearsall. 2023. Private Equity in Health Care: Barbarians at the Gate? SSRN Scholarly Paper. Rochester, NY. https://papers.ssrn.com/abstract=4478515.
- Fitzgerald, M. Paula., Sterling A. Bone, and Janis K. Pappalardo. 2020. Consumer Power and Access. *Journal of Public Policy & Marketing* 39(2): 95–98.
- Ford, Andrea, Giulia De Togni, and Livia Miller. 2021. Hormonal Health: Period Tracking Apps, Wellness, and Self-Management in the Era of Surveillance Capitalism. *Engaging Science, Technology, and Society* 7(1): 48–66.
- Fowler, Leah R. 2021. Health App Lemons. SSRN Scholarly Paper. Rochester, NY. https://doi.org/10. 2139/ssrn.3920424.



- Fox, Mary Frank, Deborah G. Johnson, and Sue V. Rosser. 2006. Women, Gender, and Technology. Illinois: University of Illinois Press.
- Frankel, Tamar. 2009. The New Financial Assets: Separating Ownership from Control Symposium. In Berle's Footsteps—A Symposium Celebrating the Launch of the Adolf A. Berle, Jr. Center on Corporations, Law & Society. Seattle University Law Review 33(4): 931–64.
- Gabriel, Yiannis, and Tim Lang. 2006. The Unmanageable Consumer. Newcastle upon Tyne: SAGE.
- Gahagan, Jacueline, and Mary K Bryson. 2021. Sex- and Gender-Based Analysis in Public Health. Vancouver: Springer. https://www.waterstones.com/book/sex-and-gender-based-analysis-in-public-health/jacqueline-gahagan/mary-k-bryson/9783030719319.
- Gallagher, Aisling. 2021. "A 'Golden Child' for Investors": The Assetization of Urban Childcare Property in NZ. *Urban Geography* 42(10): 1440–58.
- Georgosouli, Andromachi. 2014. Payment Protection Insurance (PPI) Misselling: Some Lessons from the UK. Connecticut Insurance Law Journal 21: 261.
- Gilman, Michele Estrin. 2021. Periods for Profit and the Rise of Menstrual Surveillance. *Columbia Journal of Gender and Law* 41(1): 100–113.
- Hall, Mark A. 2006. Paying for What You Get and Getting What You Pay For: Legal Responses to Consumer-Driven Health Care. *Law and Contemporary Problems* 69: 159.
- Harvey, David. 2006. A Brief History of Neoliberalism. Oxford University Press.
- Hayes, Bernadette, and Pauline Prior. 2003. Gender and Health Care in the UK. Bristol: Palgrave Macmillan.
- Hendl, Tereza, and Bianca Jansky. 2022. Tales of Self-Empowerment through Digital Health Technologies: A Closer Look at "Femtech." *Review of Social Economy* 80(1): 29–57.
- Henry, Caitlin, and Jessa M. Loomis. 2023. Healthcare as Asset: Private Equity Investment and the Changing Geographies of Care in the United States. *Geoforum* 146(November): 103866.
- Herrine, Luke. 2022. What Is Consumer Protection For? Loyola Consumer Law Review 34(2): 222.
- Horton, A. 2020. Liquid Home? Financialisation of the Built Environment in the UK's "Hotel-style" Care Homes. *Transactions of the Institute of British Geographers* 46(1): 179–92.
- Hunter, Benjamin M., and Susan F. Murray. 2019. Deconstructing the Financialization of Healthcare. Development and Change 50(5): 1263–87.
- Ireland, Paddy. 2009. Financialization and Corporate Governance. Northern Ireland Legal Quarterly 60(1): 1–34.
- Ireland, Paddy. 2011. Law and the Neoliberal Vision: Financial Property, Pension Privatisation and the Ownership Society. Northern Ireland Legal Quarterly 62(1): 1–32.
- Ireland, Paddy. 2012. Financialization and Corporate Governance. SSRN Scholarly Paper. Rochester, NY. https://doi.org/10.2139/ssrn.2068478.
- Johnson, Deborah. 2010. Sorting out the Question of Feminist Technology. Chicago: UI Press.
- Kamvounias, Patty, and Sally Varnham. 2006. Getting What They Paid For. *Griffith Law Review* 15(2): 306–32.
- Khan, Fazal. 2016. The "Uberization" of Healthcare: The Forthcoming Legal Storm Over Mobile Health Technology's Impact on the Medical Profession. *Scholarly Works* 26(January): 123.
- Landström, Catharina. 2007. Queering Feminist Technology Studies. Feminist Theory 8(1): 7-26.
- Langley, Paul. 2020. Assets and Assetization in Financialized Capitalism. Review of International Political Economy 28(2): 1.
- Layne, Linda, Sharra Vostral, and Kate Boyer. 2010. Feminist Technology. Chicago: UI Press.
- Lehoux, P., F.A. Miller, G. Daudelin, and D.R. Urbach. 2016. How Venture Capitalists Decide Which New Medical Technologies Come to Exist. *Science and Public Policy* 43(3): 375–85.
- Levy, Karen. 2015. Intimate Surveillance. SSRN Scholarly Paper. Rochester, NY. https://papers.ssrn.com/abstract=2834354.
- Littleton, Karen, and Cecila Hoyles. 2002. The Gendering of Information Technology. In ed. Nicola Yelland and Andee Rubin, 10:3–32. New York: Peter Lang. http://www.peterlang.com/index.cfm?vID=64911&vLang=E&vHR=1&vUR=2&vUUR=1.
- Ludwig, Sabine. 2024. Advancing Gender Equality. Eurohealth 30(2): 16–20.
- MacNeil, Iain. 2012. Consumer Protection: Financial Innovation and Product Intervention. *Law and Financial Markets Review* 6: 91.
- McKinsey & Company. 2022. 'FemTech'. 2022. https://www.mckinsey.com/industries/healthcare/our-insights/the-dawn-of-the-femtech-revolution.
- Mann, Kirk. 2006. Three Steps to Heaven? Tensions in the Management of Welfare: Retirement Pensions and Active Consumers. *Journal of Social Policy* 35(1): 77–96.



- Martin, Randy. 2002. Financialization of Daily Life. Temple University Press. https://www.jstor.org/stable/j.ctt14bsxq4.
- Mathiason, Jessica Lee. 2023. Femtech: The "Smart" Business of Menstruation, Hormone Tracking, and the Corporate Construction of Risk. *Feminist Studies* 49(1): 118–49.
- McMillan, Catriona. 2023. Rethinking the Regulation of Digital Contraception under the Medical Devices Regime. *Medical Law International* 23(1): 3–25.
- Mishra, Paro, Ravinder Kaur, Shambhawi Vikram, and Prashastika Sharma. 2023. Femtech Apps and Quantification of the Reproductive Body in India: Issues and Concerns. *Current Sociology* 72: 1340.
- Montgomerie, Johnna. 2020. *Indebtedness and Financialization in Everyday Life*. In The Routledge International Handbook of Financialization: Routledge.
- Morgan, Daniel J., Shannon Brownlee, Aaron L. Leppin, Nancy Kressin, Sanket S. Dhruva, Les Levin, Bruce E. Landon, et al. 2015. Setting a Research Agenda for Medical Overuse. *BMJ* 351(August): 1.
- Mosciaro, Mayra, Maria Kaika, and Ewald Engelen. 2022. Financializing Healthcare and Infrastructures of Social Reproduction: How to Bankrupt a Hospital and Be Unprepared for a Pandemic. *Journal of Social Policy* 53: 261.
- Muniesa, Fabian, Liliana Doganova, Horacio Ortiz, Álvaro Pina-Stranger, Florence Paterson, Alaric Bourgoin, Véra Ehrenstein, et al. 2017. *Capitalization: A Cultural Guide*. Presses des Mines.
- Murray, Susan F., and Mary Ann Elston. 2005. The Promotion of Private Health Insurance and Its Implications for the Social Organisation of Healthcare: A Case Study of Private Sector Obstetric Practice in Chile. Sociology of Health & Illness 27(6): 701–21.
- Neumark, Tom, and Ruth J. Prince. 2021. Digital Health in East Africa: Innovation, Experimentation and the Market. *Global Policy* 12(6): 65–74.
- NHS Digital. 2022. Why Digital Inclusion Matters to Health and Social Care. NHS Digital. 2022. https://digital.nhs.uk/about-nhs-digital/corporate-information-and-documents/digital-inclusion/digital-inclusion-in-health-and-social-care.
- Nundy, Samiran, Mr Keshav Desiraju, Sanjay Nagral, Samiran Nundy, Mr Keshav Desiraju, and Sanjay Nagral, eds. 2018. Healers or Predators? Healthcare Corruption in India. Oxford: Oxford University Press.
- O'Neill, Phillip M. 2013. The Financialisation of Infrastructure: The Role of Categorisation and Property Relations. *Cambridge Journal of Regions, Economy and Society* 6(3): 441–54.
- Oehler, Andreas, and Christina Werner. 2008. Saving for Retirement—A Case for Financial Education in Germany and UK? An Economic Perspective. *Journal of Consumer Policy* 31(3): 253–83.
- Ollila, Maria. 2023. Accessibility in Health Mobile Applications. Finland: University of Oulu. http://jultika.oulu.fi/Record/nbnfioulu-202306262755.
- Orser, Barbara, Susan Coleman, and Yanhong Li. 2020. Progress or Pinkwashing: Who Benefits from Digital Women-Focused Capital Funds? *Small Business Economics* 55(2): 363–87.
- Pagliari, Stefano, Lauren M. Phillips, and Kevin L. Young. 2020. The Financialization of Policy Preferences: Financial Asset Ownership, Regulation and Crisis Management. Socio-Economic Review 18(3): 655–80.
- Pappalardo, J.K. 2022. Economics of Consumer Protection: Contributions and Challenges in Estimating Consumer Injury and Evaluating Consumer Protection Policy. *Journal of Consumer Policy* 45(2): 201–38
- Park, Young Yoon. 2019. Regulator-Led Resolution in Mass Finance Mis-Selling: Implication of the UK PPI Scandal. *Journal of East Asia and International Law* 12: 321.
- Patton, Clare, Marisa McVey, and Ciara Hackett. 2022. Enough of the "Snake Oil": Applying a Business and Human Rights Lens to the Sexual and Reproductive Wellness Industry. *Business and Human Rights Journal* 7(1): 12–28.
- Piketty, Thomas. 2014. Capital in the Twenty-First Century. Harvard: Harvard University Press.
- Pistor, Katharina. 2019. The Code of Capital. Princeton, NJ: Princeton University Press.
- Prince, Anya. 2022. Reproductive Health Surveillance. SSRN Scholarly Paper. Rochester, NY.
- Quentin, David. 2017. Corporate Tax Reform and "Value Creation": Towards Unfettered Diagonal Re-Allocation across the Global Inequality Chain. *Accounting, Economics, and Law: A Convivium* 7(1): 1.
- Quentin, Clair. 2020. Corporations, Comity and the "Revenue Rule": A Jurisprudence of Offshore. London Review of International Law 8(3): 399–424.



- Quentin, Clair. 2022. Global Production and the Crisis of the Tax State. *Environment and Planning A: Economy and Space* 56: 2196.
- Raghavan, Vijay. 2022. Consumer Law's Equity Gap. Utah Law Review 2022(3): 511-71.
- Ramsay, Iain. 1991. Consumer Law and the Search for Empowerment. *Canadian Business Law Journal* 19: 397.
- Ramsay, Iain. 2006. 'Consumer Law, Regulatory Capitalism and the "New Learning" in Regulation'. Sydney Law Review. https://www8.austlii.edu.au/cgi-bin/viewdoc/au/journals/SydLawRw/2006/2. html.
- Ramsay, Iain. 2012. Consumer Law and Policy. 3nd edn. Bloomsbury Publishing PLC.
- Ramsay, Iain, and Toni Williams. 2009. 'The Crash That Launched a Thousand Fixes: Regulation of Consumer Credit after the Lending Revolution and the Credit Crunch'. Law Reform and Financial Markets, September.
- Raposo, Vera Lúcia., and Sofia Palmieri. 2023. Femtech and the Law (or a Tale of How Eve Fights to Overturn Adam and Take Control over Her Body). BioLaw Journal Rivista Di BioDiritto, 1S(March): 361–73.
- Rauch, Johhanes, Josep Figueras, Dorli KahrGottlieb, and Elunet Morgan. 2024. 'Shifting Sands of Health: Democracy, Demographics, Digitalisation (Eurohealth)'. European Observatory on Health Systems and Policies. https://eurohealthobservatory.who.int/publications/i/shifting-sands-of-health-democracy-demographics-digitalisation-(eurohealth).
- Ray, Keisha. 2023. Black Health: The Social, Political, and Cultural Determinants of Black People's Health. Bioethics for Social Justice. Oxford: Oxford University Press.
- Richards, Neil M., Woodrow Hartzog, and Jordan Francis. 2022. 'Comments of the Cordell Institute on the Prevalence of Commercial Surveillance and Data Security Practices That Harm Consumers'. SSRN Scholarly Paper. Rochester, NY.
- Rickett, Charles E. F., and Thomas G. W. Telfer, eds. 2003. *International Perspectives on Consumers' Access to Justice*. Cambridge: Cambridge University Press.
- Riefa, Christine, and Severine Saintier. 2020. Vulnerable Consumers and the Law: Consumer Protection and Access to Justice. London: Routledge.
- Rikap, Cecilia. 2022. Becoming an Intellectual Monopoly by Relying on the National Innovation System: The State Grid Corporation of China's Experience. *Research Policy* 51(4): 104472.
- Rikap, Cecilia. 2023. The Expansionary Strategies of Intellectual Monopolies: Google and the Digitalization of Healthcare. *Economy and Society* 52(1): 110–36.
- Rotarou, Elena S., and Dikaios Sakellariou. 2017. Neoliberal Reforms in Health Systems and the Construction of Long-Lasting Inequalities in Health Care: A Case Study from Chile. Health Policy (Amsterdam, Netherlands) 121(5): 495–503.
- Sadowski, Jathan. 2020. The Internet of Landlords: Digital Platforms and New Mechanisms of Rentier Capitalism. Antipode 52(2): 562–80.
- Sanders, Talia, Yiming Liu, Virginia Buchner, and Paul B. Tchounwou. 2009. Neurotoxic Effects and Biomarkers of Lead Exposure: A Review. Reviews on Environmental Health 24(1): 15–45.
- Sell, Susan K. 2019. 21st-Century Capitalism: Structural Challenges for Universal Health Care. Globalization and Health 15(1): 76.
- Sethi, S Prakash. 2012. Multinational Corporations and the Impact of Public Advocacy on Corporate Strategy Nestle and the Infant Formula Controversy. Berlin: Springer.
- Siapka, Anastasia, and Elisabetta Biasin. 2021. Bleeding Data: The Case of Fertility and Menstruation Tracking Apps. *Internet Policy Review* 10(4): 1.
- Silverglade, Bruce A. 1991. A Comment on "Public Policy Issues in Health Claims for Foods." *Journal of Public Policy & Marketing* 10(1): 54–62.
- Spencer, Jennifer C., Jane J. Kim, Jasmin A. Tiro, Sarah J. Feldman, Sarah C. Kobrin, Celette Sugg Skinner, Lei Wang, et al. 2023. Racial and Ethnic Disparities in Cervical Cancer Screening From Three U.S. Healthcare Settings. *American Journal of Preventive Medicine* 65(4): 667–77.
- Spooner, Joseph, ed. 2019. 'Financialised Capitalism and the Centrality of Household Debt'. In Bankruptcy: The Case for Relief in an Economy of Debt, 37–64. International Corporate Law and Financial Market Regulation. Cambridge: Cambridge University Press.
- Stardust, Zahra, Kath Albury, and Jenny Kennedy. 2023. Sex Tech Entrepreneurs: Governing Intimate Data in Start-up Culture. New Media & Society 26: 7148.
- Starosta, Guido. 2016. The New International Division of Labour: Global Transformation and Uneven Development. Berlin: Springer.



- Stein, Felix, and Devi Sridhar. 2018. 'The Financialisation of Global Health'. Wellcome Open Research 3(February):17. https://doi.org/10.12688/wellcomeopenres.13885.1.
- Stewart, Ana, Mark Logan, and Katherine Milne. 2023. 'Pathways: A New Approach for Women in Entrepreneurship. An Independent Review Commissioned by the Scottish Government'. Report. Edinburgh: Scottish Government. https://www.gov.scot/binaries/content/documents/govscot/publications/independent-report/2023/02/pathways-new-approach-women-entrepreneurship/documents/pathways-new-approach-women-entrepreneurship/govscot% 3Adocu.
- Stewart, Conor. 2023. 'Worldwide Femtech VC Investment 2012-2021'. Statistica, 2023. https://www.statista.com/statistics/1126913/femtech-vc-investment-worldwide/.
- Storeng, Katerini Tagmatarchi, Sakiko Fukuda-Parr, Manjari Mahajan, and Sridhar Venkatapuram. 2021.
  'Digital Technology and the Political Determinants of Health Inequities: Special Issue Introduction'.
  Global Policy 12: 5–11.
- Strauss, Kendra. 2023. Beyond Crisis? Using Rent Theory to Understand the Restructuring of Publicly Funded Seniors' Care in British Columbia, Canada. *Environment and Planning A: Economy and Space* 55(6): 1506–27.
- Sundin, Phillip, Jonathan Callan, and Khanjan Mehta. 2016. Why Do Entrepreneurial mHealth Ventures in the Developing World Fail to Scale? *Journal of Medical Engineering & Technology* 40(7–8): 444–57.
- Taylor, Alexandra. 2021. Fertile Ground: Rethinking Regulatory Standards for FemTech. *UC Davis Law Review* 54(April): 2267–2300.
- Tellmann, Ute. 2022. The Politics of Assetization: From Devices of Calculation to Devices of Obligation. *Distinktion Journal of Social Theory* 23(1): 33–54.
- Thomas, Gareth M., and Deborah Lupton. 2016. Threats and Thrills: Pregnancy Apps, Risk and Consumption. *Health, Risk & Society* 17(7–8): 495–509.
- United Nations. 2021. 'Digital Public Goods|Office of the Secretary-General's Envoy on Technology'. 2021. https://www.un.org/techenvoy/content/digital-public-goods.
- van de Wiel, Lucy. 2020. The Speculative Turn in IVF: Egg Freezing and the Financialization of Fertility. *New Genetics and Society* 39(3): 306–26.
- Van Loo, Rory. 2022. 'The Public Stakes of Consumer Law: The Environment, the Economy, Health, Disinformation, and Beyond'. SSRN Scholarly Paper. Rochester, NY. https://papers.ssrn.com/abstract=4308960.
- Verma, Arpana, Claudia Pagliari, Omer Ali, and Elizabeth Dalgarno. 2022. 'How the Digital Healthcare Revolution Leaves the Most Vulnerable Behind'. *Policy@Manchester Articles* (blog). 2022. https://blog.policy.manchester.ac.uk/posts/2022/01/how-the-digital-healthcare-revolution-leaves-the-most-vulnerable-behind/.
- Wachsmuth, David, and Alexander Weisler. 2018. Airbnb and the Rent Gap: Gentrification through the Sharing Economy. *Environment and Planning A: Economy and Space* 50(6): 1147–70.
- Wajcman, Judy. 2007. From Women and Technology to Gendered Technoscience. Information, Communication & Society 10(3): 287–98.
- Wanggren, Lena. 2017. Gender, Technology and the New Women. Edinburgh: Edinburgh University Press.
- Watson, Helen L., and Soo Downe. 2017. Discrimination against Childbearing Romani Women in Maternity Care in Europe: A Mixed-Methods Systematic Review. *Reproductive Health* 14(1): 1.
- Westwood, Sue. 2020. 'Socio- Legal Perspectives on Healthcare Inequalities in Later Life'. In *Research Handbook on Law, Medicine and Society*, edited by Marie-Andree Jacob and Anna Kirkland. Law and Society. Edward Elgar Publishing.
- WHO. 2021. 'Global Strategy on Digital Health 2020-2025'. WHO. https://www.who.int/docs/default-source/documents/gs4dhdaa2a9f352b0445bafbc79ca799dce4d.pdf.
- Williams, Toni. 2012. Who Wants to Watch: A Comment on the New International Paradigm of Financial Consumer Market Regulation. Seattle University Law Review 36: 1217.
- Willis, Lauren E. 2006. 'Decisionmaking and the Limits of Disclosure: The Problem of Predatory Lending: Price'. SSRN Scholarly Paper. Rochester, NY. https://papers.ssrn.com/abstract=927756.
- Wilson, Bart J. 2012. Contra Private Fairness. The American Journal of Economics and Sociology 71(2): 407–35.
- Women of Wearables, Women of Wearables, dir. 2022. Femtech Untapped. FemTech Untapped. Online. https://www.womenofwearables.com/femtech-untapped.
- Wyczik, Jakub. 2024. Ownership in the 21st Century: Property Law of Digital Assets. Information & Communications Technology Law 1: 1–20.



Zokaityte, Asta. 2017. Financial Literacy Education: Edu-Regulating Our Saving and Spending Habits. New York, NY: Palgrave Macmillan.

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